

***Carex proposita* Mackenzie**

Smoky Mountain sedge  
Cyperaceae (Sedge Family)

**Status:** State Threatened

**Rank:** G4S2

**General Description:** Adapted from Hitchcock et al. (1969): A dwarf perennial graminoid that is 4 to 12 in. (10 to 30 cm) tall. The leaves are narrow and firm, 1/64 to 1/8 in. ( $\frac{1}{2}$  to 2½ mm) wide, flat or folded toward the base, and become channeled and eventually three-angled toward the apex. There are 3 to 6 sessile (or nearly so) spikes that are ¼ to ½ in. (7 to 13 mm) long and have both staminate and pistillate flowers that are borne in a compact inflorescence or loose head up to 1 in. (2½ cm) long. The spikes are generally distinctly longer than wide. The pistillate scales are tan to light brown and much narrower and usually somewhat shorter than the perigynia. The perigynia has light green or greenish margins, becomes tan toward the center, and is very thin and flat except where distended by the achene. The perigynia is 1/8 to ¼ in. (4 to 6 mm) long, 1/16 to 1/8 in. (2 to 3 mm) wide, 2 to 3 times as long as wide, wing-margined and serrulate, with a prominent inframarginal nerve (visible on both sides) delimiting the wing from the cavity. The perigynia is lightly several- to many-nerved dorsally, nerveless or lightly nerved ventrally, abruptly short-beaked, with a beak up to 1 mm. long, and the distal 1/64 in. ( $\frac{1}{2}$  mm) is slender and entire. There are 2 stigmas. The achenes are lenticular, much smaller than the perigynium, and 1/16 in. (1½ to 2 mm) long.

**Identification Tips:** *Carex proposita* is most closely related to *C. microptera* and *C. haydeniana*. *C. proposita* can be distinguished from the latter two species by its leaves and inflorescence. The leaves of *C. proposita* are mostly 1/16 in. (1½ to 2 mm) wide and often folded or channeled and its inflorescence is loose and narrow, forming a compact spike or loose head that is generally distinctly longer than it is wide. The leaves of *C. microptera* and *C. haydeniana* are 1/16 to 1/8 in. (2 to 4 mm) wide and flat or nearly so, while they have a dense inflorescence that is typically globose-ovoid or forms a broadly ellipsoid head. A technical key is needed for identification.

**Phenology:** Identifiable from July to August.

**Range:** This species is found locally in the mountains of central Idaho and the Wenatchee Mountains of Washington.

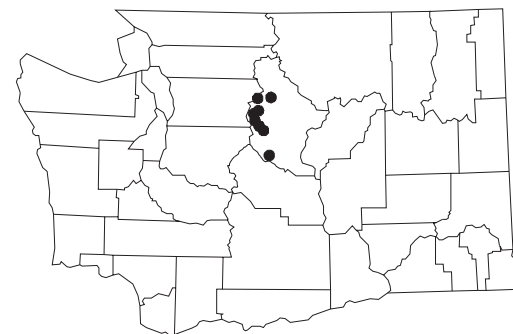
***Carex proposita***

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Known distribution of  
*Carex proposita*  
in Washington



● Current (1980+)  
○ Historic (older than 1980)

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Photo by Steve Matson

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**Habitat:** *Carex proposita* prefers open, rocky slopes and ridges, often on talus or granite substrate, near or above timberline. In Washington, this species has been found at an elevation of 6000 to 7700 ft (1829 to 2347 m). Associated species include nard sedge (*Carex nardina*), alpine pussy-toes (*Antennaria alpina*), prairie lupine (*Lupinus lepidus*), Brewer's sedge (*Carex breweri*), mountain meadow cinquefoil (*Potentilla diversifolia*), spreading phlox (*Phlox diffusa*), dwarf mountain fleabane (*Erigeron compositus*), mountain sorrel (*Oxyria digyna*), and fescue (*Festuca ovina*).

**Ecology:** This alpine taxon is commonly found on ridge tops and in dry meadows at high elevations in close proximity to lakes and streams.

**State Status Comments:** Known from less than 10 recent occurrences in Chelan County and 1 recent occurrence in Snohomish County. All occurrences are on land managed by the U.S. Forest Service.

**Inventory Needs:** Rocky slopes and ridges as well as dry meadows at high elevations in Chelan and Snohomish counties should be systematically surveyed for additional populations. Plant and habitat information should be compiled for this species.

**Threats and Management Concerns:** Recreational pressure may be a threat for some populations.

**References:**

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1969. *Vascular Plants of the Pacific Northwest Part 1: Vascular Cryptogams, Gymnosperms, and Monocotyledons*. University of Washington Press, Seattle, WA. 914 pp.